### West Virginia Department of Environmental Protection Division of Air Quality

# **Fact Sheet**



# For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: R30-04300002-2022
Application Received: December 6, 2021
Plant Identification Number: 03-54-043-00002
Permittee: Columbia Gas Transmission, LLC
Facility Name: Hubball Compressor Station

Mailing Address: 1700 MacCorkle Ave. SE, 4th Floor
Charleston, WV 25314

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Physical Location: Branchland, Lincoln County, West Virginia

UTM Coordinates: 396.016 km Easting • 4,228.873 km Northing • Zone 17

Directions: Take Exit 11 from Interstate 64 to State Route 10 South. Travel along SR

10 South to Branchland. At Branchland, cross the bridge to Secondary Route 36/1, then go approximately 2 miles south on 36/1 to Hubball

Station.

### **Facility Description**

The Columbia Gas Transmission, LLC, Hubball Station is a natural gas compressor facility covered by a Standard Industrial Classification (SIC) of 1311 and a North American Industry Classification System Code (NAICS) of 211111. The station is upstream of the Kenova Extraction facility. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 1,320 HP and one (1) 600 HP natural gas fired reciprocating engines, one (1) 229 HP reciprocating engine with generator, one (1) triethylene glycol (TEG) dehydration unit with a NATCO SHV flare and glycol reboiler, and numerous storage tanks of various sizes.

### **Emissions Summary**

Plantwide Emissions Summary [Tons per Year]				
Regulated Pollutants	Potential Emissions	2020 Actual Emissions		
Carbon Monoxide (CO)	73.57	3.73		
Nitrogen Oxides (NO <sub>X</sub> )	104.43	22.22		
Particulate Matter (PM <sub>2.5</sub> )	0.67	0.05		
Particulate Matter (PM <sub>10</sub> )	0.67	0.05		
Total Particulate Matter (TSP)	0.67	0.09		
Sulfur Dioxide (SO <sub>2</sub> )	0.98	0.03		
Volatile Organic Compounds (VOC)	22.51	24.05		

 $PM_{10}$  is a component of TSP.

Hazardous Air Pollutants	<b>Potential Emissions</b>	2020 Actual Emissions	
Benzene	3.44	0.02	
Toluene	0.41	0.13	
Ethylbenzene	0.18	0.02	
Xylene	0.70	0.03	
n-Hexane	0.11	0.12	
Formaldehyde	5.95	1.71	
Methanol	0.28	0.09	
2,2,4 - Trimethylpentane	< 0.01	Not reported	
Total HAPs	11.07	2.12	

Some of the above HAPs may be counted as PM or VOCs.

Note: Fugitive emissions are not accounted for in the Facility-Wide PTE to determine Title V applicability for this type of facility but are reported in the Actual Emissions for Title V operating fee calculations. This is the reason the 2020 actual emissions exceed the potential emissions for VOC and n-Hexane.

### **Title V Program Applicability Basis**

This facility has the potential to emit 104.43 TPY of  $NO_X$ . Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30

### **Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

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Federal and State:	45CSR2	Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR10	SO <sub>2</sub> Emissions
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction, Modification,
		Relocation and Operation of Stationary
		Sources of Air Pollutants, Notification
		Requirements, Temporary Permits, General
		Permits, and Procedures for Evaluation
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent
		information such as annual emission
		inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emissions standards for HAPs
	40 C.F.R. Part 61 Subpart M	Asbestos inspection and removal
	40 C.F.R. Part 63 Subpart HH	National Emission Standards for Hazardous
		Air Pollutants from Oil and Natural Gas
		Production Facilities
	40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous
	_	Air Pollutants for Stationary Reciprocating
		Internal Combustion Engines
	40 C.F.R. Part 82 Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
·	45CSR17	To Prevent and Control Particulate Matter
		Air Pollution from Material Handling,
		Preparation, Storage and other sources of
		Fugitive Particulate Matter
		-

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### **Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-2479C	March 9, 2015	
CO-R1-C-2007-4A	March 1, 2007	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

#### **Determinations and Justifications**

This is the fourth Title V permit renewal for this facility.

### 1.1 Emissions Units

There has been no change to the emission units at this facility since the last Title V renewal.

### 3.0 Facility-Wide Requirements

• Updated the boiler-plate language to the most recent version. There have been no changes to 45CSR§17-3.1 or the Emergency Operating Scenario, so no other changes were made.

### 4.0 Miscellaneous Indirect Natural Gas Heaters and Boilers less than 10 MMBtu/hr [emission point ID(s): BL1]

• There have been no changes to the applicable requirements of 45CSR2 since the last renwal so no changes were made to this section.

### 5.0 40 C.F.R. 63, Subpart ZZZZ Requirements for Emergency Reciprocating Internal Combustion Engine(s) RICE at an Area HAP Source [emission point ID(s): G2]

• There were minimal changes to the applicable requirements of 40 C.F.R. 63 Subpart ZZZZ for generator G2. These included removal of the vacated sections 40 C.F.R. §§63.6640 (f)(2)(ii) and (iii); and addition of requirements from 40 C.F.R. §63.6650(h).

### 6.0 40 C.F.R. 63, Subpart ZZZZ Requirements for 2SLB Reciprocating Internal Combustion Engine(s) RICE at an Area HAP Source [emission point ID(s): E03]

• There have been no changes to the applicable requirements of 40 C.F.R. 63 Subpart ZZZZ for engine E03 since the last permit renewal.

## 7.0 40 C.F.R. 63, Subpart ZZZZ Requirements for 4SLB Reciprocating Internal Combustion Engine(s) RICE greater than 500 hp at an Area Non-Remote HAP Source [emission point ID(s): E01, E02]

• There have been no changes to the applicable requirements of 40 C.F.R. 63 Subpart ZZZZ for engines E01 and E02 since the last permit renewal.

# 8.0 Source-Specific Requirements for Natural Gas Dehydration Controlled by a Flare and Meeting the Exemption Requirement of 40 C.F.R. 63 Subpart HH [emission point ID(s): FL1]

- There have been no changes to the applicable requirements of 45CSR6, 45CSR13 permit R13-2479C, and 40 C.F.R. 63 Subpart HH since the last renewal.
- There were some changes to 40 C.F.R. 60 Subpart A that resulted in the removal of the Startup, Shutdown, and Malfunction provision from conditions 8.1.3.c and 8.2.2.

## 9.0 45CSR13 NSR Permit Requirements, R13-2479 [emission point ID(s): E01, E02, E03, G2, BL1 & FL1]

• There have been no changes to the applicable requirements of 45CSR13 permit R13-2479C since the last renwal so no changes were made to this section

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. **45CSR4** To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Cause or Contributes to an Objectionable Odor or Odors: This State Rule shall not apply to the following source of objectionable odor until such time as feasible control methods are developed: Internal combustion engines.
- b. **45CSR10** To Prevent and Control Air Pollution from the Emission of Sulfur Dioxide Emissions from Indirect Heat Exchangers. WVDAQ has determined that 45CSR10 does not apply to natural gas fired engines. Also, 45CSR10 is not applicable to the facility's dehydrator reboiler because it is a fuel burning unit less than 10 MMBtu/hr in accordance with the exemptions defined within 45CSR§10-10.1. Additionally, the dehydration still vent is considered exempt from the manufacturing source requirements due to having a potential to emit less than 500 lb SO<sub>2</sub>/yr in accordance with 45CSR§10-4.1.e.
- c. **45CSR21** To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: All storage tanks at the station, which are listed as insignificant sources, are below 40,000 gallons in capacity which exempts the facility from 45CSR§21-28. The compressor station is not engaged in the extraction or fractionation of natural gas which exempts the facility from 45CSR§21-29. Additionally this site is not located within one of the five designated VOC maintenance counties (Cabell, Kanawha, Putnam, Wayne & Wood).
- d. **45CSR27** *To Prevent and Control the Emissions of Toxic Air Pollutants:* Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."
- e. **40** C.F.R. Part **60** Subpart Dc Standards of Performance for Steam Generating Units: The dehydration reboiler heater burner has a maximum design heat input capacity of less than 10 MMBtu/hr, which is below the applicability threshold defined within 40 C.F.R. §60.40c(a).
- f. **40 C.F.R. Part 60 Subpart K and Ka -** Standards of Performance for Storage Vessels for Petroleum Liquids: All tanks at the facility are below 40,000 gallons in capacity as specified in 40 C.F.R. §§60.110(a) and 60.110a(a).
- g. **40** C.F.R. Part **60** Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels: All tanks at the facility are below 75m<sup>3</sup> (19,813 gallons) in capacity as specified in 40 C.F.R. §60.110b(a).
- h. **40** C.F.R. Part **60** Subpart KKK Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant(s). The station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both. As a result, the station has no affected sources operating within this source category.
- i. **40 C.F.R. Part 60 Subpart IIII** Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The Compressor Station does not have any compression ignition internal combustion engines.

- j. **40 C.F.R. Part 60 Subpart JJJJ** Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines. All engines at the facility were constructed, reconstructed, or modified prior to the June 12, 2006 applicability date listed in 40 C.F.R. §60.4230(a)(4).
- k. **40 C.F.R. Part 60 Subpart OOOO** Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution. The Storage Vessel requirements defined for production sources is not applicable to this site because all vessels were constructed, modified, or commenced reconstruction, prior to August 23, 2011 as stated in 40 C.F.R. §60.5365(e). No other affected sources were identified at this site.
- 1. **40** C.F.R. Part **60** Subpart **OOOOa** Standards of Performance for Crude Oil and Natural Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015. The requirements defined by this NSPS are not applicable to this site because all affected sources commenced construction prior to September 18, 2015 in accordance with the applicability criteria defined within 40 C.F.R. §60.5365a.
- m. **40 C.F.R. Part 63 Subpart HHH -** National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. The Compressor Station is not subject to Subpart HHH since the station's function is to compress production gas and it is not a natural gas transmission and storage facility as defined under 40 C.F.R. §63.1270. Additionally, the station is not a major source of HAPs.
- n. **40 C.F.R. Part 63 Subpart DDDDD -** *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters:* This rule does not apply to this station since it does not exceed major source HAP thresholds.
- o. **40** C.F.R. Part **63** Subpart JJJJJJ National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The facility is not subject to 40 C.F.R. Part **63** Subpart JJJJJJ since the dehydration reboiler is not a steam generating unit, but a process heater, which is not regulated under this source category.
- p. **40 C.F.R. Part 64 -** *Compliance Assurance Monitoring (CAM)*. The facility does not have any pollutant specific emissions units (PSEU) that satisfied all of the applicability criteria requirements of 40 CFR §64.2(a). There have been no changes to any equipment at the facility since the last renewal that have resulted in a source satisfying the applicability requirements of 40 CFR §64.2(a) and becoming subject to CAM.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

#### **Comment Period**

Beginning Date: May 4, 2022 Ending Date: June 3, 2022

#### **Point of Contact**

All written comments should be addressed to the following individual and office:

Robert Mullins
West Virginia Department of Environmental Protection
Division of Air Quality
601 57<sup>th</sup> Street SE
Charleston, WV 25304
304/926-0499 ext. 41286
Robert.A.Mullins@wv.gov

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Comments received from EPA, Region III on June 3, 2022.

As part of the Title V renewal application, VOC PTE emissions were updated for the dehydration unit, blowdown, and fugitive emissions and hexane emissions were updated for the dehydration unit based on a site specific gas sample taken by the facility.

EPA has the following comments:

- a. Emission limits cannot be changed in the Title V Operating Permit renewal application without first modifying the emission limits in the underlying R13 Permit for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants (Permit No. R13-2479C dated March 9, 2015).
- b. WVDEP should ensure that the current emission limits that are in effect for the facility in Permit No. R13-2479C dated March 9, 2015, are what is reflected in the Title V Operating Permit renewal for the facility.

Response: There was no change to the emission limits in the permit during this Title V renewal. The issue was that some of the facility-wide PTEs reported in the draft/proposed Title V Factsheet were lower than the sum of the emission limits from R13-2479C. Therefore, the Facility-wide PTEs in the Factsheet were recalculated and if an emission unit's PTEs from the Title V renewal application were less than that emission unit's R13-2479C emission limits, the R13-2479C emission limits were used for the facility-wide PTE calculations. It should also be noted that fugitive emissions are not accounted for in the Facility-Wide PTE to determine Title V applicability for this type of facility but are reported in the Actual Emissions for the purpose of fee collection.